

Serial No.: 10/092,690

Attorney Docket No.: 02P03755US

REMARKS

Upon entry of the instant Amendment, Claims 1-15 are pending. Applicants gratefully acknowledge that claims 5-10 are allowed and that claims 2-4 and 12-14 were indicated to be allowable. Claims 2 and 12 were amended into independent form, and claims 11 and 15 were amended to more particularly point out Applicants' invention.

Claims 2-4 and 12-14 were indicated to be allowable if amended into independent form including all the limitations of the base claim and any intervening claims. Claims 2 and 12 have been so amended and thus should be allowable; the remaining claims depend from these and thus should likewise be allowable.

Claims 1, 11, and 15 were rejected under 35 U.S.C. 103 as being unpatentable over Mochizuki, U.S. Patent No. 6,580,901 ("Mochizuki") in view of Lomp, U.S. Patent Publication No. 20020118653 ("Lomp"). Applicants respectfully submit that the claimed invention is not taught, suggested, or implied by Mochizuki or Lomp, either singly or in combination.

As discussed in the Specification, embodiments of the present invention relate to a power control system using an open loop technique for relatively low power levels and a closed loop technique at higher power levels. In the open loop technique, the wireless telephone stores a phasing table of automatic power control (APC) values for the power levels (which are used to control upconverter gain levels measured at different channels. In operation, a power controller reads the power level and reads the APC value in the table. Another table stores the APC value for one power level as the channel and temperature are varied. This value is interpolated, as needed, during operation. The APC value for the open loop approach is determined by reading the input channel; finding the closest higher and closest lower channels in the temperature-channel table; interpolating between APC values for the temperature column of the closest lower temperature, to get the actual value. The difference between this value and the APC value for the actual power level in the phasing table is then obtained.

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In the closed loop approach, the actual power output is read from a power detector and the APC value is adjusted until the output of the power detector corresponds to the value which gives the required power level. A phasing table of power levels and power detector values is used. To factory calibrate these values, the APC value is adjusted until the nominal power for each power level is output and the power detector value is stored. A two pole IIR (Infinite Impulse Response) filter may be used to filter the power detector output.

In operation, in certain embodiments, the closed loop control algorithm runs every transmit burst and reads the power detector when the power is off; reads the power detector when the transmitter is on and subtracts these two numbers to obtain the actual RF power level; from the power level, looks up the desired RF power value in the phasing table to find an RF power error; and runs a servo control loop calculation to find the APC value needed to correct the error.

Thus, claims 1 and 11 recite "an open loop power controller adapted to maintain a first phasing table and a channel-temperature table; a closed loop power controller adapted to maintain a second phasing table and receive a power detector output."

In contrast, neither Mochizuki nor Lomp appear to have anything at all to do with, inter alia, a channel-temperature table. While Mochizuki provides a control unit 8, neither reference appears to recognize phasing tables and channel-temperature tables as generally recited in the claims at issue. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection.

The Official Action states that the Mochizuki "closed loop power controller receives said power detector output during a transmit burst and after a transmit burst." Mochizuki itself states that the supply voltage is raised "only for a short period of time before and after the steady-state burst time period." Claim 15 has been amended to more clearly recite a differential measurement. Thus, Claim 15 has been amended to recite "wherein in said high power mode, said closed loop power controller receives a power detector output during a transmit burst and receives a power detector output

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after a transmit burst and *uses the difference between the outputs to derive said APC value.*" Since Mochizuki does not appear to relate to a differential measurement, e.g., using the difference between the outputs to derive said APC value, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

For all of the above reasons, Applicants respectfully submit that the application is in condition for allowance, which allowance is earnestly solicited.

Respectfully requested,

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